

PATENT COOPERATION TREATY

PCT

13 Rec'd PCT/PTO 11 OCT 2000
 INTERNATIONAL SEARCH REPORT 09/673133

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 1038-938 MIS	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/CA 99/ 00307	International filing date (day/month/year) 12/04/1999	(Earliest) Priority Date (day/month/year) 14/04/1998
Applicant CONNAUGHT LABORATORIES LIMITED et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. Certain claims were found unsearchable (See Box I).

3. Unity of invention is lacking (see Box II).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. _____

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

None of the figures.

INTERNATIONAL SEARCH REPORT

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: 9
because they relate to subject matter not required to be searched by this Authority, namely:

Remark: Although claim 9
is directed to a method of treatment of the human/animal
body, the search has been carried out and based on the alleged
effects of the compound/composition.

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such
an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 99/00307

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C07K14/79	C07K14/22	C12N15/31	C12Q1/68	A61K39/02
A61K48/00				

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 32980 A (CONNAUGHT LAB) 12 September 1997 (1997-09-12) page 3, line 29 -page 9, line 32 page 19, line 32 -page 30, line 6; examples 1-19 SEQ.ID.N.3 ---	1-12
A	WO 97 13785 A (CONNAUGHT LAB ; YANG YAN PING (CA); MYERS LISA E (CA); HARKNESS ROB) 17 April 1997 (1997-04-17) page 1, line 1 -page 3, line 8; examples 1-8 page 4, line 20 -page 8, line 31 ---	1, 9
A	US 5 708 149 A (SCHRYVERS ANTHONY ET AL) 13 January 1998 (1998-01-13) abstract; figure 23 column 5, line 63 -column 6, line 28 ---	1, 6
	-/-	

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

15 October 1999

Date of mailing of the international search report

02/11/1999

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 99/00307

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SCHRYVERS A B ET AL: "COMPARATIVE ANALYSIS OF THE TRANSFERRIN AND LACTOFERRIN BINDING PROTEINS IN THE FAMILY NEISSERIACEAE" CANADIAN JOURNAL OF MICROBIOLOGY, vol. 35, no. 5, 1 May 1989 (1989-05-01), pages 409-415, XP002020995 ISSN: 0008-4166 cited in the application abstract ---	1
A	RAONG-HUA YU ET AL: "THE INTERACTION BETWEEN HUMAN TRANSFERRIN AND TRANSFERRIN BINDING PROTEIN 2 FROM MORAXELLA (BRANHAMELLA) CATARRHALIS DIFFERS FROM THAT OF OTHER HUMAN PATHOGENS" MICROBIAL PATHOGENESIS, vol. 15, 1 January 1993 (1993-01-01), pages 433-445, XP000612196 ISSN: 0882-4010 abstract ---	1
P,X	MYERS L.E. ET AL., : "The transferrin binding protein B of moraxella catarrhalis elicits bactericidal antibodies and is a potential vaccine antigen" INFECTION AND IMMUNITY, vol. 66, no. 9, 1998, page 4183-4192 XP002118475 the whole document -----	2,7

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 99/00307

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9732980	A	12-09-1997	AU	1865397 A	22-09-1997
			CA	2248095 A	12-09-1997
			CN	1217748 A	26-05-1999
			EP	0885300 A	23-12-1998
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			EP	0866803 A	30-09-1998
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US 5708149	A	13-01-1998	US	5922562 A	13-07-1999
			US	5922841 A	13-07-1999
			US	5922323 A	13-07-1999
			AU	705998 B	03-06-1999
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			CA	2175332 A	18-05-1995
			WO	9513370 A	18-05-1995
			CN	1141060 A	22-01-1997
			EP	0728200 A	28-08-1996
			JP	9506247 T	24-06-1997
			NZ	275772 A	27-04-1999
